

1. Bolt brackets (1) to structurally adequate wall or column (bolts by others—see page 3 for diameter), making sure brackets are in line and plumb through holes for bolts (5).

**NOTE:** Buyer and user warrants that the structure in which and to which this system or equipment is to be installed is adequate to sustain the loads that will be imposed on it by said system or equipment when it is operating as intended.

2. Bolt brackets (2) and (3) to jib beam.
3. Attach tension rod (4) to clevises (6). Two nuts and one lock washer required for each end.
4. Raise boom assembly and attach to lower wall bracket (1) using bolt (5) supplied.
5. Attach top end of tension rod assembly to top bracket (1) and beam bracket (3)—bolts supplied.
6. Level beam by adjusting tension rod.
7. Add hoist and trolley stops (7).

**NOTE:** Hardware and tie rods are supplied with complete cranes or may be purchased with fitting kits (see page 2 and 3 for fitting kit, hardware kit, and tie rod Product Numbers).

**WARNING:** Equipment described herein is not designed for, and should not be used for lifting, supporting or transporting humans. Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

**WARNING:** Only competent fabrication personnel familiar with standard fabrication practices should be employed to assemble these cranes because of the necessity of properly interpreting these instructions and for the purposes of determining appropriate compatible equipment and product applications. Acco disclaims any responsibility for the quality of workmanship employed in the fabrication of a crane according to these instructions or the sufficiency of the system in which and to which this system or equipment is to be installed or the sufficiency of the system to sustain any particular load that may be imposed upon it. Contact the Material Handling Group of Acco Babcock Inc. at 1110 East Princess Street, York, Pennsylvania 17403 for additional information if necessary.

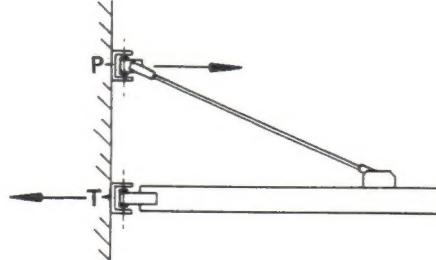
## **SERIES 411**

### WALL BRACKET JIB CRANE FITTINGS

**CAPACITIES: 1/2 TO 5 TONS**  
**SPANS: 8 TO 30 FEET**

| Capacity<br>Tons | Span | Product<br>Number | B(a)<br>Bracket<br>Centers | D     | W(b)<br>Beam | C<br>Cap Channel<br>Length | Tie Rod<br>Diameter | Tie Rod<br>Length(d) | Thrust and<br>Pull (c)<br>(lbs.) | Net Wt.<br>of Crane<br>(Approx.<br>lbs.) | S-Beam<br>Length |
|------------------|------|-------------------|----------------------------|-------|--------------|----------------------------|---------------------|----------------------|----------------------------------|--|------------------|
| 1/2              | 8'   | 4110010           | 2'-9"                      | 1'-3" | 6            |                            |                     | 6'-1½"               | 3720                             | 265                                      | 7'-7½"           |
|                  | 10'  |                   | 3'-0"                      | 1'-6" | 6            |                            |                     | 7'-10¼"              | 4420                             | 300                                      | 9'-7½"           |
|                  | 12'  |                   | 3'-9"                      | 1'-9" | 6            |                            |                     | 9'-9"                | 4360                             | 335                                      | 11'-7½"          |
|                  | 14'  |                   | 4'-6"                      | 2'-0" | 6            |                            |                     | 11'-7½"              | 4330                             | 375                                      | 13'-7½"          |
|                  | 16'  |                   | 5'-6"                      | 2'-0" | 6            |                            |                     | 13'-10½"             | 4120                             | 410                                      | 15'-7½"          |
|                  | 18'  |                   | 6'-0"                      | 2'-0" | 7            |                            | 1"                  | 15'-11"              | 4400                             | 495                                      | 17'-7½"          |
|                  | 20'  |                   | 6'-6"                      | 2'-3" | 8            |                            |                     | 17'-8½"              | 4680                             | 600                                      | 19'-7½"          |
|                  | 22'  |                   | 7'-0"                      | 2'-3" | 8c6          | 18'-9"                     |                     | 19'-9½"              | 5130                             | 905                                      | 21'-7½"          |
|                  | 24'  |                   | 7'-6"                      | 2'-6" | 8c6          | 20'-6"                     |                     | 21'-7"               | 5350                             | 975                                      | 23'-7½"          |
|                  | 26'  |                   | 8'-0"                      | 2'-6" | 10c6         | 22'-6"                     |                     | 23'-8½"              | 5810                             | 1230                                     | 25'-7½"          |
|                  | 28'  |                   | 9'-0"                      | 3'-0" | 10c6         | 24'-0"                     |                     | 25'-4¼"              | 5680                             | 1315                                     | 27'-7½"          |
|                  | 30'  |                   | 10'-0"                     | 3'-6" | 12c8         | 25'-6"                     |                     | 27'-1"               | 6040                             | 1710                                     | 29'-7½"          |
| 1                | 8'   | 4110010           | 2'-9"                      | 1'-3" | 6            |                            |                     | 6'-1½"               | 7280                             | 265                                      | 7'-7½"           |
|                  | 10'  |                   | 3'-0"                      | 1'-6" | 6            |                            |                     | 7'-10¼"              | 8620                             | 300                                      | 9'-7½"           |
|                  | 12'  |                   | 3'-9"                      | 1'-9" | 6            |                            |                     | 9'-9"                | 8640                             | 335                                      | 11'-7½"          |
|                  | 14'  |                   | 4'-6"                      | 2'-0" | 7            |                            |                     | 11'-7½"              | 8440                             | 415                                      | 13'-7½"          |
|                  | 16'  |                   | 5'-6"                      | 2'-3" | 7            |                            |                     | 13'-7½"              | 8010                             | 455                                      | 15'-7½"          |
|                  | 18'  |                   | 6'-0"                      | 2'-6" | 8            |                            | 1"                  | 15'-5"               | 8450                             | 555                                      | 17'-7½"          |
|                  | 20'  |                   | 6'-6"                      | 2'-6" | 10           |                            |                     | 17'-5¼"              | 8980                             | 745                                      | 19'-7½"          |
|                  | 22'  |                   | 7'-0"                      | 2'-9" | 10c6         | 18'-3"                     |                     | 19'-3¼"              | 9580                             | 1065                                     | 21'-7½"          |
|                  | 24'  |                   | 7'-6"                      | 2'-9" | 10c6         | 20'-3"                     |                     | 21'-3¼"              | 9890                             | 1150                                     | 23'-7½"          |
|                  | 26'  |                   | 8'-0"                      | 3'-0" | 10c6         | 22'-0"                     |                     | 23'-1½"              | 10190                            | 1230                                     | 25'-7½"          |
|                  | 28'  |                   | 9'-0"                      | 3'-6" | 12c8         | 23'-6"                     |                     | 24'-10¼"             | 10320                            | 1610                                     | 27'-7½"          |
|                  | 30'  |                   | 10'-0"                     | 3'-6" | 12c8         | 25'-6"                     |                     | 27'-1"               | 10100                            | 1710                                     | 29'-7½"          |
| 2                | 8'   | 4110020           | 2'-9"                      | 1'-3" | 8            |                            |                     | 6'-0½"               | 14480                            | 375                                      | 7'-7½"           |
|                  | 10'  |                   | 3'-0"                      | 1'-6" | 8            |                            |                     | 7'-10"               | 17170                            | 435                                      | 9'-7½"           |
|                  | 12'  |                   | 3'-9"                      | 1'-9" | 8            |                            |                     | 9'-8½"               | 16790                            | 495                                      | 11'-7½"          |
|                  | 14'  |                   | 4'-6"                      | 2'-0" | 8            |                            |                     | 11'-7½"              | 16590                            | 550                                      | 13'-7½"          |
|                  | 16'  |                   | 5'-6"                      | 2'-3" | 10           |                            |                     | 13'-6½"              | 16880                            | 720                                      | 15'-7½"          |
|                  | 18'  |                   | 6'-0"                      | 2'-3" | 10           |                            | 1½"                 | 15'-7½"              | 16570                            | 795                                      | 17'-7½"          |
|                  | 20'  |                   | 6'-6"                      | 2'-6" | 12           |                            |                     | 17'-4½"              | 17320                            | 1000                                     | 19'-7½"          |
|                  | 22'  |                   | 7'-0"                      | 2'-6" | 12c8         | 18'-6"                     |                     | 19'-5½"              | 18320                            | 1420                                     | 21'-7½"          |
|                  | 24'  |                   | 7'-6"                      | 3'-0" | 12c8         | 20'-0"                     |                     | 21'-0½"              | 18860                            | 1535                                     | 23'-7½"          |
|                  | 26'  |                   | 8'-0"                      | 3'-6" | 12c8         | 21'-6"                     |                     | 22'-7¼"              | 19360                            | 1650                                     | 25'-7½"          |
|                  | 28'  |                   | 9'-0"                      | 3'-6" | 12c8         | 23'-6"                     |                     | 24'-10"              | 18720                            | 1760                                     | 27'-7½"          |
|                  | 30'  |                   | 10'-0"                     | 3'-0" | 12c8         | 26'-0"                     |                     | 27'-6¼"              | 18220                            | 1895                                     | 29'-7½"          |
| 3                | 8'   | 4110030           | 2'-9"                      | 1'-3" | 8            |                            |                     | 6'-1¼"               | 21600                            | 435                                      | 7'-6½"           |
|                  | 10'  |                   | 3'-3"                      | 1'-6" | 8            |                            |                     | 7'-11"               | 23550                            | 490                                      | 9'-6½"           |
|                  | 12'  |                   | 4'-0"                      | 1'-9" | 10           |                            |                     | 9'-9½"               | 23570                            | 630                                      | 11'-6½"          |
|                  | 14'  |                   | 4'-9"                      | 2'-0" | 10           |                            |                     | 11'-8¼"              | 23530                            | 700                                      | 13'-6½"          |
|                  | 16'  |                   | 5'-6"                      | 2'-3" | 10           |                            |                     | 13'-7"               | 23510                            | 765                                      | 15'-6½"          |
|                  | 18'  |                   | 6'-3"                      | 2'-3" | 12           |                            | 1½"                 | 15'-8½"              | 23680                            | 950                                      | 17'-6½"          |
|                  | 20'  |                   | 7'-0"                      | 2'-6" | 12c8         | 16'-6"                     |                     | 17'-7¼"              | 24060                            | 1340                                     | 19'-6½"          |
|                  | 22'  |                   | 7'-9"                      | 2'-6" | 12c8         | 18'-6"                     |                     | 19'-9"               | 24140                            | 1450                                     | 21'-6½"          |
|                  | 24'  |                   | 8'-6"                      | 3'-0" | 12c8         | 20'-0"                     |                     | 21'-5"               | 24220                            | 1565                                     | 23'-6½"          |
|                  | 26'  |                   | 9'-3"                      | 3'-0" | 12c8         | 22'-0"                     |                     | 23'-6½"              | 24310                            | 1940                                     | 25'-6½"          |
|                  | 28'  |                   | 10'-0"                     | 3'-0" | 12c8         | 24'-0"                     |                     | 25'-8"               | 24410                            | 2065                                     | 27'-6½"          |
|                  | 30'  |                   | 11'-0"                     | 3'-0" | 12c8         | 26'-0"                     |                     | 27'-10½"             | 23950                            | 2185                                     | 29'-6½"          |
| 5                | 8'   | 4110050           | 3'-0"                      | 1'-6" | 12           |                            |                     | 5'-10¼"              | 33000                            | 780                                      | 7'-6½"           |
|                  | 10'  |                   | 3'-3"                      | 1'-6" | 12           |                            |                     | 7'-10"               | 39260                            | 860                                      | 9'-6½"           |
|                  | 12'  |                   | 4'-0"                      | 1'-9" | 12           |                            |                     | 9'-7"                | 39070                            | 940                                      | 11'-6½"          |
|                  | 14'  |                   | 4'-9"                      | 2'-0" | 12           |                            |                     | 11'-7½"              | 38970                            | 1020                                     | 13'-6½"          |
|                  | 16'  |                   | 5'-6"                      | 2'-6" | 15           |                            |                     | 13'-3"               | 39180                            | 1280                                     | 15'-6½"          |
|                  | 18'  |                   | 6'-3"                      | 3'-0" | 15           |                            | 2"                  | 14'-11"              | 39150                            | 1385                                     | 17'-6½"          |
|                  | 20'  |                   | 7'-0"                      | 3'-6" | 15c10        | 15'-3"                     |                     | 16'-7"               | 39660                            | 1755                                     | 19'-6½"          |
|                  | 22'  |                   | 7'-9"                      | 3'-6" | 15c10        | 17'-3"                     |                     | 18'-8½"              | 39740                            | 1885                                     | 21'-6½"          |
|                  | 24'  |                   | 8'-6"                      | 3'-6" | 15c10        | 19'-3"                     |                     | 20'-10¼"             | 39850                            | 2015                                     | 23'-6½"          |
|                  | 26'  |                   | 9'-3"                      | 3'-6" | 15c10        | 21'-3"                     |                     | 23'-0"               | 39960                            | 2145                                     | 25'-6½"          |
|                  | 28'  |                   | 10'-0"                     | 3'-6" | 15c10        | 23'-3"                     |                     | 25'-1½"              | 40070                            | 2690                                     | 27'-6½"          |
|                  | 30'  |                   | 11'-0"                     | 3'-6" | 15c10        | 25'-3"                     |                     | 27'-4¼"              | 39280                            | 2835                                     | 29'-6½"          |
| SPECIAL          |      |                   |                            |       |              |                            |                     |                      |                                  |  |                  |

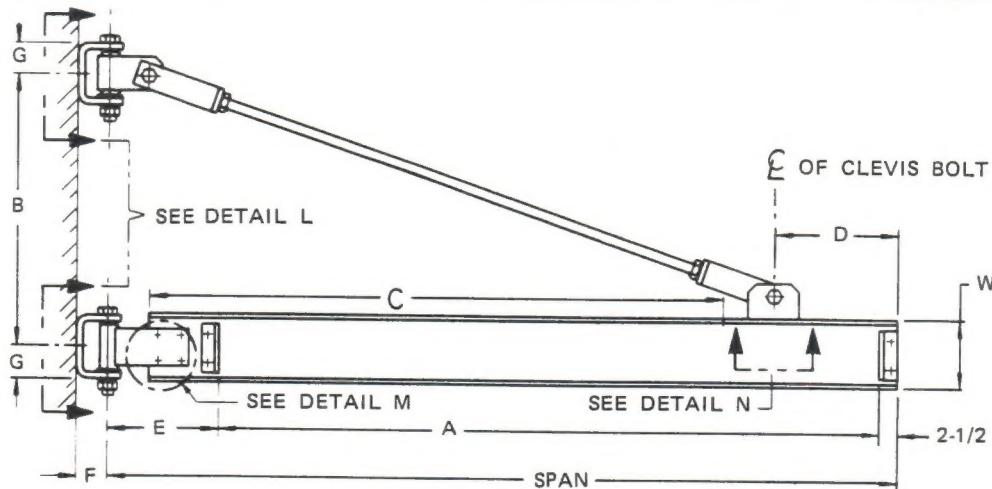
- (a) Do not deviate from "B" dimension
- (b) The "W" dimension indicates the size S-beam to be used. If a cap channel needs to be stitch welded to the top of the S-beam, the letter "C" will follow the S-beam size. The last number indicates the size of the cap channel.
- (c) The diagram to the right, details the thrust and pull forces that this jib crane applies to the supporting structure when a load is lifted. The chart above details in pounds the thrust at point T and the pull at point P. It is essential that a structurally adequate wall, column or truss exist to support the jib crane.
- (d) One tie rod required per crane. Tie rods threaded 8 inches on each end.



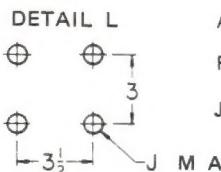


**Series 411 Wall Bracket  
Jib Crane Fittings  
41-3      Issued 1-4-82**

**1/2 to 5  
TONS**

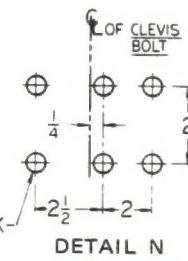
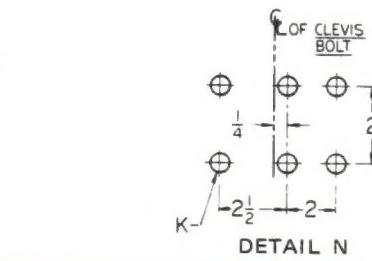


**4110010**

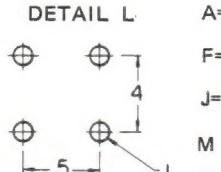


DETAIL L  
A=SPAN-16      E=13-1/2  
F=3-1/2      G=3-1/2  
J=5/8  $\varnothing$  BOLTS      K=1/2  $\varnothing$  BOLTS

M AND N HARDWARE KIT NO. 4110110  
TIE ROD NO. 4110210 (SPECIFY LENGTH)

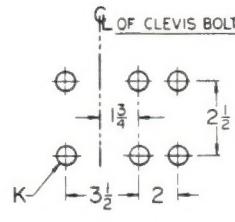
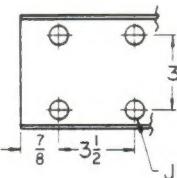


**4110020**

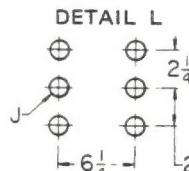


DETAIL L      A=SPAN-16      E=13-1/2  
F=4      G=4-1/8  
J=3/4  $\varnothing$  BOLTS      K=5/8  $\varnothing$  BOLTS

M AND N HARDWARE KIT NO. 4110120  
TIE ROD NO. 4110220 (SPECIFY LENGTH)

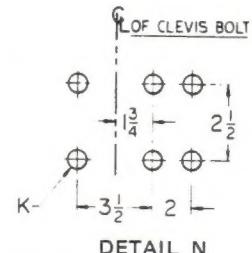
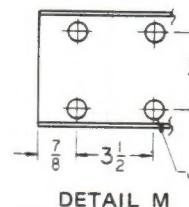


**4110030**

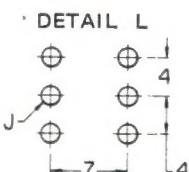


DETAIL L      A=SPAN-16-1/2      E=14  
F=4      G=4-5/8  
J=3/4  $\varnothing$  BOLTS      K=5/8  $\varnothing$  BOLTS

M AND N HARDWARE KIT NO. 4110130  
TIE ROD NO. 4110230 (SPECIFY LENGTH)

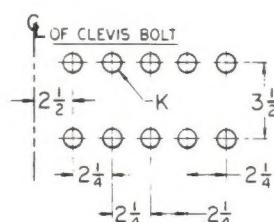
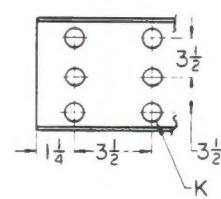


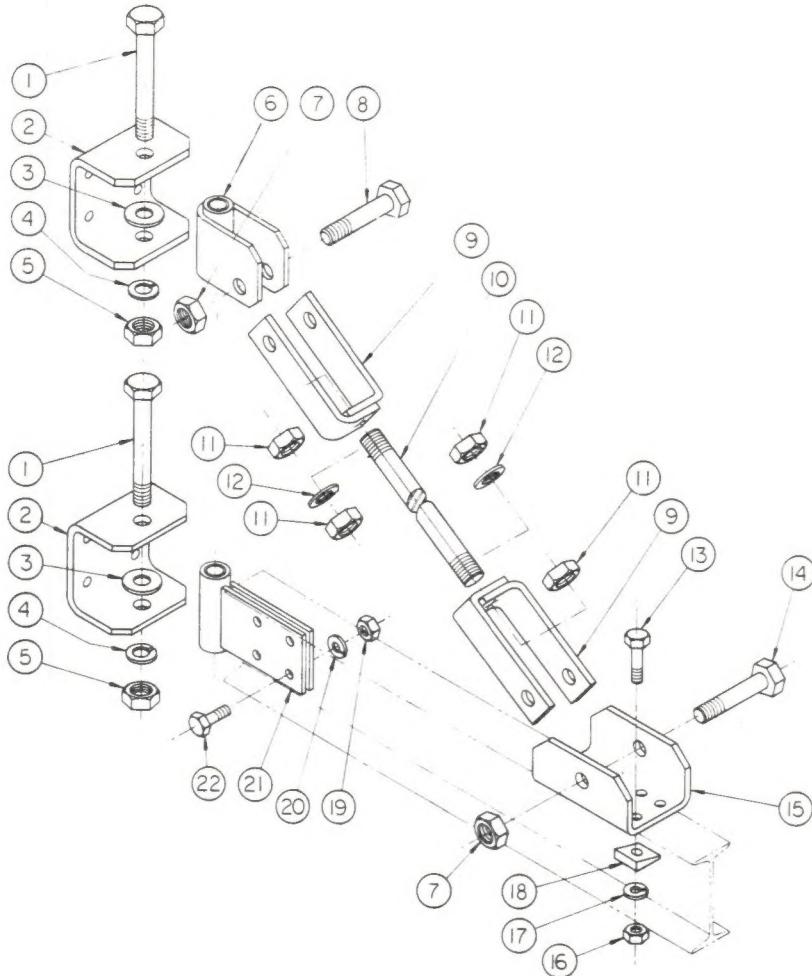
**4110050**



DETAIL L      A=SPAN-17-3/4      E=15-1/4  
F=6      G=7  
J=1-1/4  $\varnothing$  BOLTS      K=3/4  $\varnothing$  BOLTS

M AND N HARDWARE KIT NO. 4110150  
TIE ROD NO. 4110250 (SPECIFY LENGTH)





| 4110010  |          |      | 4110020                   |          |      | 4110030                   |          |      | 4110050                     |          |      |                        |
|----------|----------|------|---------------------------|----------|------|---------------------------|----------|------|-----------------------------|----------|------|------------------------|
| ITEM NO. | PART NO. | QTY. | DESCRIPTION               | PART NO. | QTY. | DESCRIPTION               | PART NO. | QTY. | DESCRIPTION                 | PART NO. | QTY. | DESCRIPTION            |
| 1        | 03339    | 2    | 1"-8 x 9" LG HHCS         | 05568    | 2    | 1 1/4"-7 x 11" LG HHCS    | 03392    | 2    | 1 1/2"-6 x 11 1/2" LG HHCS  | 03418    | 2    | 1 3/4"-5 x 16" LG HHCS |
| 2        | 23327    | 2    | WALL CHANNEL              | 23353    | 2    | WALL CHANNEL              | 23390    | 2    | WALL CHANNEL                | 53402    | 2    | WALL CHANNEL           |
| 3        | 03341    | 2    | 1/8" THK BRONZE WASHER    | 03365    | 2    | 1/8" THK BRONZE WASHER    | 03395    | 2    | 1/8" THK BRONZE WASHER      | 03421    | 2    | 1/8" THK BRONZE WASHER |
| 4        | 03340    | 2    | 1" LOCK WASHER            | 03364    | 2    | 1" LOCK WASHER            | 03394    | 2    | 1 1/2" LOCK WASHER          | 03420    | 2    | 1 1/2" LOCK WASHER     |
| 5        | 03302    | 2    | 1"-8 HEX NUT              | 03363    | 2    | 1 1/4"-7 HEX NUT          | 03393    | 2    | 1 1/2"-6 HEX NUT            | 03419    | 2    | 1 3/4"-5 HEX NUT       |
| 6        | 53337    | 1    | UPPER PIVOT ASSEMBLY      | 53360    | 1    | UPPER PIVOT ASSEMBLY      | 53386    | 1    | UPPER PIVOT ASSEMBLY        | 53423    | 1    | UPPER PIVOT ASSEMBLY   |
| 7        | 01022    | 2    | 1"-8 NYLOCK NUT           | 03362    | 2    | 1 1/4"-7 NYLOCK NUT       | 03362    | 2    | 1 1/4"-7 NYLOCK NUT         | 05566    | 2    | 1 1/4"-5 NYLOCK NUT    |
| 8        | 02788    | 1    | 1"-8 x 5 1/2" LG HHCS     | 03347    | 1    | 1 1/4"-7 x 7" LG HHCS     | 03344    | 1    | 1 1/4"-7 x 7" LG HHCS A-325 | 03424    | 1    | 1 1/4"-5 x 8" LG HHCS  |
| 9        | 53326    | 2    | CLEVIS ASSEMBLY           | 53358    | 2    | CLEVIS ASSEMBLY           | 53389    | 2    | CLEVIS ASSEMBLY             | 53408    | 2    | CLEVIS ASSEMBLY        |
| 10       | 4110210  | 1    | 1" Ø TIE ROD              | 4110220  | 1    | 1 1/4" Ø TIE ROD          | 4110230  | 1    | 1 1/2" Ø TIE ROD            | 4110250  | 1    | 2" Ø TIE ROD           |
| 11       | 03302    | 4    | 1"-8 HEX NUT              | 03393    | 4    | 1 1/2"-6 HEX NUT          | 03393    | 4    | 1 1/2"-6 HEX NUT            | 03426    | 4    | 2"-4 1/2" HEX NUT      |
| 12       | 03340    | 2    | 1" LOCK WASHER            | 03394    | 2    | 1 1/4" LOCK WASHER        | 03394    | 2    | 1 1/2" LOCK WASHER          | 03427    | 2    | 2" LOCK WASHER         |
| 13       | 02279    | 6    | 1/8"-13 x 2 1/2" LG HHCS  | 03285    | 6    | 5/16"-11 x 2 1/2" LG HHCS | 01109    | 6    | 5/16"-11 x 3" LG HHCS       | 01037    | 10   | 5/16"-10 x 3" LG HHCS  |
| 14       | 01227    | 1    | 1"-8 x 7" LG HHCS         | 03348    | 1    | 1 1/4"-7 x 9" LG HHCS     | 03345    | 1    | 1 1/4"-7 x 9" LG HHCS A-325 | 03425    | 1    | 1 1/4"-5 x 11" LG HHCS |
| 15       | 23328    | 1    | END OF BEAM BRACKET       | 23361    | 1    | END OF BEAM BRACKET       | 23380    | 1    | END OF BEAM BRACKET         | 53401    | 1    | END OF BEAM BRACKET    |
| 16       | 03289    | 6    | 1/8"-13 HEX NUT           | 03287    | 6    | 5/16"-11 HEX NUT          | 03287    | 6    | 5/16"-11 HEX NUT            | 03300    | 10   | 5/16"-10 HEX NUT       |
| 17       | 03291    | 6    | 1/8" LOCK WASHER          | 03286    | 6    | 5/16" LOCK WASHER         | 03286    | 6    | 5/16" LOCK WASHER           | 03373    | 10   | 5/16" LOCK WASHER      |
| 18       | 03290    | 6    | 1/8" BEVEL WASHER         | 03375    | 6    | 5/16" BEVEL WASHER        | 03375    | 6    | 5/16" BEVEL WASHER          | 03428    | 10   | 5/16" BEVEL WASHER     |
| 19       | 03287    | 4    | 5/16"-11 HEX NUT          | 03300    | 4    | 5/16"-10 HEX NUT          | 03300    | 4    | 5/16"-10 HEX NUT            | 03300    | 6    | 5/16"-10 HEX NUT       |
| 20       | 03286    | 4    | 5/16" LOCK WASHER         | 03373    | 4    | 5/16" LOCK WASHER         | 03373    | 4    | 5/16" LOCK WASHER           | 03373    | 6    | 5/16" LOCK WASHER      |
| 21       | 53336    | 1    | LOWER PIVOT ASSEMBLY      | 53359    | 1    | LOWER PIVOT ASSEMBLY      | 53391    | 1    | LOWER PIVOT ASSEMBLY        | 53410    | 1    | LOWER PIVOT ASSEMBLY   |
| 22       | 03346    | 4    | 5/16"-11 x 1 1/2" LG HHCS | 03371    | 4    | 5/16"-10 x 2 1/2" LG HHCS | 03371    | 4    | 5/16"-10 x 2 1/2" LG HHCS   | 01037    | 6    | 5/16"-10 x 3" LG HHCS  |
| 23       | 4110110  | 1    | HARDWARE KIT*             | 4110120  | 1    | HARDWARE KIT*             | 4110130  | 1    | HARDWARE KIT*               | 4110150  | 1    | HARDWARE KIT*          |

\*Note: Item 23 consists of Item No. 11, 12, 13, 16, 17, 18, 19, 20, and 22. Item No. 23 not shown.

**SUGGESTED MAINTENANCE**

- 1. LUBRICATION** — Renew grease in upper and lower pivot assemblies every six (6) months with Lubriplate no. 630-AA or equivalent
- 2. ADJUSTMENTS** — Check: Level of boom and tighten all hardware every three (3) months
- 3. INSPECTION** — Every six (6) months perform general check



**Acco Babcock Inc.**

A Babcock International company

**Material Handling Group**

1110 East Princess Street, York, Pennsylvania 17403

Telephone 717 843-1523 Telex 84-0411